

09/633,450

L Number	Hits	Search Text	DB	Time stamp
1	10478	diagnost\$4 adj (information or data or script\$ or routine\$)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:03
2	3563162	(detect\$4 or monitor\$4 or track\$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:05
3	2659	machine\$ adj information	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:07
4	140	((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:44
6	0	((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and (((detect\$4 or monitor\$4 or track\$4)) adj (machine\$ adj information))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:13
7	283	(execut\$4 or operat\$4) adj (diagnost\$4 adj (information or data or script\$ or routine\$))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:15
8	989	(714/38).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:15
9	1233	(714/25).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:16
10	130	(714/36).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:16
11	267	(714/37).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:17

12	3169	(714/?).cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:17
13	8	(((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and ((execut\$4 or operat\$4) adj (diagnost\$4 adj (information or data or script\$ or routine\$)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:41
14	0	(((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and ((714/38).cccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:41
15	2	(((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and ((714/?).cccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:44
16	140	(((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and (diagnost\$4 adj (information or data or script\$ or routine\$))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:45
17	188	(709/?).cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:45
18	38	(717/121).cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:46
19	99	(717/126).cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:46
20	992	(717/12?).cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:49
21	745	(717/13?).cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:47

22	967	(717/14?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:47
23	709	(717/15?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:47
24	2879	((709/?).ccls.) or ((717/121).ccls.) or ((717/126).ccls.) or ((717/12?).ccls.) or ((717/13?).ccls.) or ((717/14?).ccls.) or ((717/15?).ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:48
25	0	((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and (((709/?).ccls.) or ((717/121).ccls.) or ((717/126).ccls.) or ((717/12?).ccls.) or ((717/13?).ccls.) or ((717/14?).ccls.) or ((717/15?).ccls.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:48
26	4964	(709/21?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:49
27	8117	(709/22?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:49
28	4414	(709/23?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:49
29	3183	(709/24?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:50
30	1944	(709/31?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:50
31	1037	(709/32?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:50

32	485	(709/33?).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:50
33	18564	((709/21?).ccls.) or ((709/22?).ccls.) or ((709/23?).ccls.) or ((709/24?).ccls.) or ((709/31?).ccls.) or ((709/32?).ccls.) or ((709/33?).ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:50
34	2	((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$))) and (((709/21?).ccls.) or ((709/22?).ccls.) or ((709/23?).ccls.) or ((709/24?).ccls.) or ((709/31?).ccls.) or ((709/32?).ccls.) or ((709/33?).ccls.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:50
5	9	((detect\$4 or monitor\$4 or track\$4)) adj (machine\$ adj information)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:52
35	24043	((709/21?).ccls.) or ((709/22?).ccls.) or ((709/23?).ccls.) or ((709/24?).ccls.) or ((709/31?).ccls.) or ((709/32?).ccls.) or ((709/33?).ccls.)) or (((709/?).ccls.) or (717/121).ccls.) or ((717/126).ccls.) or (717/12?).ccls.) or ((717/13?).ccls.) or (717/14?).ccls.) or ((717/15?).ccls.)) or (714/?).ccls.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:53
36	432	((709/21?).ccls.) or ((709/22?).ccls.) or ((709/23?).ccls.) or ((709/24?).ccls.) or ((709/31?).ccls.) or ((709/32?).ccls.) or ((709/33?).ccls.)) or (((709/?).ccls.) or (717/121).ccls.) or ((717/126).ccls.) or (717/12?).ccls.) or ((717/13?).ccls.) or (717/14?).ccls.) or ((717/15?).ccls.)) or (714/?).ccls.)) and (diagnost\$4 adj (information or data or script\$ or routine\$))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:53
37	4	((709/21?).ccls.) or ((709/22?).ccls.) or ((709/23?).ccls.) or ((709/24?).ccls.) or ((709/31?).ccls.) or ((709/32?).ccls.) or ((709/33?).ccls.)) or (((709/?).ccls.) or (717/121).ccls.) or ((717/126).ccls.) or (717/12?).ccls.) or ((717/13?).ccls.) or (717/14?).ccls.) or ((717/15?).ccls.)) or (714/?).ccls.)) and (diagnost\$4 adj (information or data or script\$ or routine\$))) and (((detect\$4 or monitor\$4 or track\$4)) adj (diagnost\$4 adj (information or data or script\$ or routine\$)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:54

38	7	((((709/21?).cccls.) or ((709/22?).cccls.) or ((709/23?).cccls.) or ((709/24?).cccls.) or ((709/31?).cccls.) or ((709/32?).cccls.) or ((709/33?).cccls.)) or (((709/?).cccls.) or ((717/121).cccls.) or ((717/126).cccls.) or ((717/12?).cccls.) or ((717/13?).cccls.) or ((717/14?).cccls.) or ((717/15?).cccls.)) or ((714/?).cccls.)) and (diagnost\$4 adj (information or data or script\$ or routine\$))) and ((execut\$4 or operat\$4) adj (diagnost\$4 adj (information or data or script\$ or routine\$)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:57
39	2	5748877.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 12:59
40	1		USPAT	2003/04/11 12:57
41	1		USPAT	2003/04/11 12:57
42	1		USPAT	2003/04/11 12:57
43	1		USPAT	2003/04/11 12:58
44	1		USPAT	2003/04/11 12:58
45	1		USPAT	2003/04/11 12:58
46	1		USPAT	2003/04/11 12:59
47	1		USPAT	2003/04/11 12:59
48	2	5805796.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 13:01
49	1		USPAT	2003/04/11 13:00
50	1		USPAT	2003/04/11 13:00
51	1		USPAT	2003/04/11 13:00
52	1		USPAT	2003/04/11 13:00
53	1		USPAT	2003/04/11 13:00
54	1		USPAT	2003/04/11 13:00
55	1		USPAT	2003/04/11 13:01
56	1		USPAT	2003/04/11 13:01

57	1		USPAT	2003/04/11 13:01
58	1		USPAT	2003/04/11 13:01
59	77554	diagnos\$4.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 13:02
60	2309	diagnos\$4.ti. and (diagnost\$4 adj (information or data or script\$ or routine\$))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 13:02
61	36	(diagnos\$4.ti. and (diagnost\$4 adj (information or data or script\$ or routine\$))) and (((((709/21?).ccls.) or ((709/22?).ccls.) or ((709/23?).ccls.) or ((709/24?).ccls.) or ((709/31?).ccls.) or ((709/32?).ccls.) or ((709/33?).ccls.)) or (((709/?).ccls.) or ((717/121).ccls.) or ((717/126).ccls.) or ((717/12?).ccls.) or ((717/13?).ccls.) or ((717/14?).ccls.) or ((717/15?).ccls.)) or ((714/?).ccls.))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/04/11 13:02

US-PAT-NO: 6151683

DOCUMENT-IDENTIFIER: US 6151683 A

TITLE: Rebuilding computer states remotely

----- KWIC -----

It would be advantageous if a support engineer had available complete diagnostic information rather than just a snapshot. However, system diagnostic tests typically generate a significant amount of data and it can be difficult for a support engineer to analyze such data in a raw form. Additionally, service centers typically support a number of different computer systems. Each computer system has its own hardware and software components and thus have unique problems. For example, it is not uncommon for failures to be caused by incorrect or incompatible configuration of the various hardware and/or software components of the particular system. It would be advantageous to provide a remote monitoring diagnostic system that could process, present and manipulate diagnostic data in a structured and organized form and also monitor a number of different computer systems without having prior knowledge of the particular hardware or software configuration of each system being monitored. In order to provide better diagnostic support to computer systems, it would also be advantageous to provide the ability to detect problems in the diagnostic data and to provide proactive monitoring of the diagnostic data in order to better detect and/or predict system problems.

US-PAT-NO: 6243827

DOCUMENT-IDENTIFIER: US 6243827 B1

TITLE: Multiple-channel failure detection in raid
systems

----- KWIC -----

This invention relates to RAID systems in which multiple-channel
failure is
detected and the diagnostic information recorded.

714/6

US-PAT-NO: 5469545

DOCUMENT-IDENTIFIER: US 5469545 A

TITLE: Expandable communication system with data flow control

----- KWIC -----

The code present in the ROM 44 performs several types of functions. The code in the ROM 44 includes the reset entry point and adapter initialization code, as well as a communications and terminal I/O control program which interfaces to host device drivers executed by the host CPU 10. Diagnostic routines are also included in the ROM 44 and may be invoked to test various subsystems of the host adapter 18' from a stand-alone diagnostic program or to trouble-shoot the host adapter 18' during normal operation.

Execute Diagnostic Routine Command

This command provides an interface to the host adapter 18' firmware diagnostic routines. Some of these diagnostic routines have side effects which limit their application once the host adapter 18' is initialized and in use by the driver. The command has at least two parameters:

In the presently disclosed embodiment, operation of the data concentrator 28 is controlled by a microcontroller 74 which may be a commercially available device, such as the HPC46004 high-performance 20-MHz, 16-bit controller, manufactured by National Semiconductor. It is contemplated that a faster (e.g. 30-MHz) microcontroller device may be employed if higher performance is required. The microcontroller 74 contains 512 bytes of internal RAM (not shown); in addition, the data concentrator 28 includes a 16k.times.16 EPROM 76 for storing start-up routines, diagnostic routines, and control program code to be executed by the microcontroller 74. The data concentrator 28 further includes an octal UART 78, which is preferably of the same type as the octal UART 46 in the host adapter 18' and an HSRT 72 which is similar to and capable of communicating with any of the corresponding HSRT's 48-54 in the host

adapter
 18'. Finally, the data concentrator 28 includes a memory controller
 and other
 support logic generally shown as support logic 84.

When the microcontroller 74 is reset as described previously, the
 data
 concentrator 28 performs self test diagnostic routines and reports the
 results
 of the diagnostic to the host adapter 18'. If any test fails, an error
 is
 reported and the firmware then performs a jump to the beginning of its
 main
 polling loop. Once the host adapter 18' has received the error code,
 it may
 assume that the data concentrator 28 is attempting to accept and
 process data
 on the high speed link. The host adapter 18' may then attempt to
 determine the
 extent of the error by issuing sequences of diagnostic mode setting
 commands
 and data frames.

TABLE 11		HOST ADAPTER 18'
COMMAND	VALUE	FUNCTION
0000	Get	host adapter 18' version information
0001	Get	extended host adapter 18' information
0002	Set	DMA channel and IRQ
0003	Initialize	transfer data structures
0004	Yield	transfer data structures
0005	Get	host adapter 18' status
0006	Get	host adapter 18'/data concentrator 28 port configuration
nn07	Open	tty port
nn08	Close	tty port
nn09	Set	tty port mode
nn0A	Set	tty port extended mode
nn0B	Transmit	break
nn0C	Flush	tty port input
nn0D	Flush	tty port output
nn0E	Flush	tty port input and output
nn0F	Wait	for tty port output to drain
nn10	Wait	for tty port modem status change
nn11	Cancel	tty port wait command
nn12	Get	tty port status
0013	Open	direct high speed channel
0014	Close	direct high speed channel
0015	Reset	direct high speed channel
0016	Get	direct high speed channel status
0017	Shutdown	all ports and channels
nn18	<u>Execute diagnostic routine</u>	
0019	Peek	host adapter RAM 42
001A	Poke	host adapter RAM 42
001B	Load	new executable image

Diagnostic routine/execute
 diagnostic
 R0 routine command
 checksum test

0 ROM

1 RAM read/write verify test 2 Timer interrupt test 3 Host interface mailbox
test 4 Bus master block transfer test 5 High-speed channel internal loopback
test 6 High-speed channel external loopback test

R1, R2, _____ R0 command completion status
R3 diagnostic routine completion status

709/234

709/235